

### G.3 Summen av uendelige rekker

$$(G.3.1) \quad \sum_{k=0}^{\infty} x^k = \frac{1}{1-x}, \quad |x| < 1$$

$$(G.3.2) \quad \sum_{k=0}^{\infty} \frac{1}{2^k} = 2$$

$$(G.3.3) \quad \sum_{k=1}^{\infty} k x^k = \frac{x}{(x-1)^2}, \quad |x| < 1$$

$$(G.3.4) \quad \sum_{k=1}^{\infty} \frac{k}{2^k} = 2$$

$$(G.3.5) \quad \sum_{k=1}^{\infty} \frac{1}{k(k+1)} = 1$$